

What is claimed is:

1. (amended) An alphabet input apparatus comprising:
  - 5 a key input part having input keys on which predetermined number of 10 basic figures *N*, *-*, *P*, *C*, *I*, *∩*, *\*, *O*, *Z*, and *J* extracted by analyzing shapes of alphabet capital letters are engraved;
  - a database part for storing alphabet information coded by a combination of two input key code values sequentially generated by the
  - 10 key input part; and
  - a character determination part for, when a code value is received from the key input part, sequentially extracting respective two input key code values to determine an alphabet corresponding to a permutation of the extracted code values from the alphabet information stored in the
  - 15 database part.
2. The alphabet input apparatus of claim 1, further comprising a character display part for displaying an alphabet determined at the character determination part.
- 20 3. (cancelled)
4. (cancelled)
- 25 5. (amended) The alphabet input apparatus of claim 1, wherein the database part stores information:
  - coding an alphabet capital letter "A" by a permutation of code

values  $N$  and  $-$ ;

coding an alphabet capital letter "B" by a permutation of code values  $P$  and  $\mathcal{D}$ ;

coding an alphabet capital letter "C" by a permutation of code  
5 values  $C$  and  $C$ ;

coding an alphabet capital letter "D" by a permutation of code values  $I$  and  $\mathcal{D}$ ;

coding an alphabet capital letter "E" by a permutation of code values  $C$  and  $-$ ;

10 coding an alphabet capital letter "F" by a permutation of code values  $-$  and  $P$ ;

coding an alphabet capital letter "G" by a permutation of code values  $C$  and  $J$ ;

coding an alphabet capital letter "H" by a permutation of code  
15 values  $P$  and  $I$ ;

coding an alphabet capital letter "I" by a permutation of code values  $I$  and  $I$ ;

coding an alphabet capital letter "J" by a permutation of code values  $J$  and  $J$ ;

20 coding an alphabet capital letter "K" by a permutation of code values  $I$  and  $C$ ;

coding an alphabet capital letter "L" by a permutation of code values  $I$  and  $-$ ;

coding an alphabet capital letter "M" by a permutation of code  
25 values  $N$  and  $\backslash$ ;

coding an alphabet capital letter "N" by a permutation of code values  $N$  and  $N$ ;

coding an alphabet capital letter "O" by a permutation of code values  $O$  and  $O$ ;

coding an alphabet capital letter "P" by a permutation of code values  $P$  and  $P$ ;

5 coding an alphabet capital letter "Q" by a permutation of code values  $O$  and  $\backslash$ ;

coding an alphabet capital letter "R" by a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet capital letter "S" by a permutation of code  
10 values  $C$  and  $\supset$ ;

coding an alphabet capital letter "T" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet capital letter "U" by a permutation of code values  $O$  and  $I$ ;

15 coding an alphabet capital letter "V" by a permutation of code values  $\backslash$  and  $Z$ ;

coding an alphabet capital letter "W" by a permutation of code values  $\backslash$  and  $N$ ;

coding an alphabet capital letter "X" by a permutation of code  
20 values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

coding an alphabet capital letter "Y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet capital letter "Z" by a permutation of code values  $Z$  and  $Z$ .

25 6. (amended) The alphabet input apparatus of claim 1, wherein the database part stores information:

coding an alphabet small letter "a" by a permutation of code

values  $C$  and  $\backslash$ ;

coding an alphabet small letter "b" by a permutation of code values  $I$  and  $\supset$ ;

coding an alphabet small letter "c" by a permutation of code  
5 values  $C$  and  $C$ ;

coding an alphabet small letter "d" by a permutation of code values  $C$  and  $I$ ;

coding an alphabet small letter "e" by a permutation of code values  $-$  and  $C$ ;

10 coding an alphabet small letter "f" by a permutation of code values  $Z$  and  $-$  or a permutation of code values  $J$  and  $-$ ;

coding an alphabet small letter "g" by a permutation of code values  $C$  and  $J$ ;

coding an alphabet small letter "h" by a permutation of code  
15 values  $P$  and  $I$ ;

coding an alphabet small letter "i" by a permutation of code values  $I$  and  $I$ ;

coding an alphabet small letter "j" by a permutation of code values  $J$  and  $J$ ;

20 coding an alphabet small letter "k" by a permutation of code values  $I$  and  $C$  or a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet small letter "l" by a permutation of code values  $J$  and  $\backslash$ ;

coding an alphabet small letter "m" by a permutation of code  
25 values  $N$  and  $I$  or a permutation of code values  $N$  and  $\backslash$ ;

coding an alphabet small letter "n" by a permutation of code values  $N$  and  $N$  or a permutation of code values  $I$  and  $N$ ;

coding an alphabet small letter "o" by a permutation of code values  $O$  and  $O$ ;

coding an alphabet small letter "p" by a permutation of code values  $P$  and  $P$ ;

5 coding an alphabet small letter "q" by a permutation of code values  $C$  and  $Z$ ;

coding an alphabet small letter "r" by a permutation of code values  $I$  and  $Z$ ;

10 coding an alphabet small letter "s" by a permutation of code values  $C$  and  $\supset$ ;

coding an alphabet small letter "t" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet small letter "u" by a permutation of code values  $O$  and  $I$ ;

15 coding an alphabet small letter "v" by a permutation of code values  $\backslash$  and  $Z$  or a permutation of code values  $O$  and  $-$ ;

coding an alphabet small letter "w" by a permutation of code values  $\backslash$  and  $N$ ;

20 coding an alphabet small letter "x" by a permutation of code values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

coding an alphabet small letter "y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet small letter "z" by a permutation of code values  $Z$  and  $Z$ .

25 7. The alphabet input apparatus of claim 1, wherein the key input part further includes a shift key for shifting a capital letter to a small letter.

8. (amended) The alphabet input apparatus of claim 7, wherein the basic figures allocated to the input keys are  $N$ ,  $-$ ,  $P$ ,  $C$ ,  $I$ ,  $\supset$ ,  $\backslash$ ,  $O$ ,  $Z$ , and  $J$ .

5

9. The alphabet input apparatus of claim 8, wherein the database part stores information:

coding an alphabet capital letter "A" by a permutation of code values  $N$  and  $-$ ;

10 coding an alphabet capital letter "B" by a permutation of code values  $P$  and  $\supset$ ;

coding an alphabet capital letter "C" by a permutation of code values  $C$  and  $C$ ;

15 coding an alphabet capital letter "D" by a permutation of code values  $I$  and  $\supset$ ;

coding an alphabet capital letter "E" by a permutation of code values  $C$  and  $-$ ;

coding an alphabet capital letter "F" by a permutation of code values  $-$  and  $P$ ;

20 coding an alphabet capital letter "G" by a permutation of code values  $C$  and  $J$ ;

coding an alphabet capital letter "H" by a permutation of code values  $P$  and  $I$ ;

25 coding an alphabet capital letter "I" by a permutation of code values  $I$  and  $I$ ;

coding an alphabet capital letter "J" by a permutation of code values  $J$  and  $J$ ;

coding an alphabet capital letter "K" by a permutation of code values  $I$  and  $C$ ;

coding an alphabet capital letter "L" by a permutation of code values  $I$  and  $-$ ;

5 coding an alphabet capital letter "M" by a permutation of code values  $N$  and  $\backslash$ ;

coding an alphabet capital letter "N" by a permutation of code values  $N$  and  $N$ ;

10 coding an alphabet capital letter "O" by a permutation of code values  $O$  and  $O$ ;

coding an alphabet capital letter "P" by a permutation of code values  $P$  and  $P$ ;

coding an alphabet capital letter "Q" by a permutation of code values  $O$  and  $\backslash$ ;

15 coding an alphabet capital letter "R" by a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet capital letter "S" by a permutation of code values  $C$  and  $\supset$ ;

20 coding an alphabet capital letter "T" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet capital letter "U" by a permutation of code values  $O$  and  $I$ ;

coding an alphabet capital letter "V" by a permutation of code values  $\backslash$  and  $Z$ ;

25 coding an alphabet capital letter "W" by a permutation of code values  $\backslash$  and  $N$ ;

coding an alphabet capital letter "X" by a permutation of code

values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

coding an alphabet capital letter "Y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet capital letter "Z" by a permutation of code  
5 values  $Z$  and  $Z$ ,

and stores information:

coding an alphabet small letter "a" by a permutation of code values  $C$  and  $\backslash$ ;

coding an alphabet small letter "b" by a permutation of code  
10 values  $I$  and  $\supset$ ;

coding an alphabet small letter "c" by a permutation of code values  $C$  and  $C$ ;

coding an alphabet small letter "d" by a permutation of code values  $C$  and  $I$ ;

15 coding an alphabet small letter "e" by a permutation of code values  $-$  and  $C$ ;

coding an alphabet small letter "f" by a permutation of code values  $Z$  and  $-$  or a permutation of code values  $J$  and  $-$ ;

coding an alphabet small letter "g" by a permutation of code  
20 values  $C$  and  $J$ ;

coding an alphabet small letter "h" by a permutation of code values  $P$  and  $I$ ;

coding an alphabet small letter "i" by a permutation of code values  $I$  and  $I$ ;

25 coding an alphabet small letter "j" by a permutation of code values  $J$  and  $J$ ;

coding an alphabet small letter "k" by a permutation of code



values  $I$  and  $C$  or a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet small letter "l" by a permutation of code values  $J$  and  $\backslash$ ;

coding an alphabet small letter "m" by a permutation of code values  $N$  and  $I$  or a permutation of code values  $N$  and  $\backslash$ ;

coding an alphabet small letter "n" by a permutation of code values  $N$  and  $N$  or a permutation of code values  $I$  and  $N$ ;

coding an alphabet small letter "o" by a permutation of code values  $O$  and  $O$ ;

coding an alphabet small letter "p" by a permutation of code values  $P$  and  $P$ ;

coding an alphabet small letter "q" by a permutation of code values  $C$  and  $Z$ ;

coding an alphabet small letter "r" by a permutation of code values  $I$  and  $Z$ ;

coding an alphabet small letter "s" by a permutation of code values  $C$  and  $\supset$ ;

coding an alphabet small letter "t" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet small letter "u" by a permutation of code values  $O$  and  $I$ ;

coding an alphabet small letter "v" by a permutation of code values  $\backslash$  and  $Z$  or a permutation of code values  $O$  and  $-$ ;

coding an alphabet small letter "w" by a permutation of code values  $\backslash$  and  $N$ ;

coding an alphabet small letter "x" by a permutation of code values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

coding an alphabet small letter "y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet small letter "z" by a permutation of code values  $Z$  and  $Z$ ,

5        wherein one of the capital latter coding information and the small letter coding information is selected by a shift key code value generated by the shift key.

10        10. (amended)     An alphabet input method comprising:  
generating first and second input key code values from input keys to which predetermined number of 10 basic figures  $N$ ,  $-$ ,  $P$ ,  $C$ ,  $I$ ,  $\supset$ ,  $\backslash$ ,  $O$ ,  $Z$ , and  $J$  extracted by analyzing shapes of alphabet capital letters are allocated, respectively;

15        setting a generation order of the two input key code values by a permutation of an input key code value; and

      determining an alphabet corresponding to a permutation of an input key code value generated from the input keys by reference to database part storing alphabet information coded by the permutation of the two input key code values.

20

11. (cancelled)

12. (cancelled)

13. (amended) The alphabet input method of claim 10, wherein the database part stores information:

25        coding an alphabet capital letter "A" by a permutation of code values  $N$  and  $-$ ;

      coding an alphabet capital letter "B" by a permutation of code

values  $P$  and  $\mathcal{D}$ ;

coding an alphabet capital letter "C" by a permutation of code  
values  $\mathcal{C}$  and  $\mathcal{C}$ ;

coding an alphabet capital letter "D" by a permutation of code  
5 values  $I$  and  $\mathcal{D}$ ;

coding an alphabet capital letter "E" by a permutation of code  
values  $\mathcal{C}$  and  $-$ ;

coding an alphabet capital letter "F" by a permutation of code  
values  $-$  and  $P$ ;

10 coding an alphabet capital letter "G" by a permutation of code  
values  $\mathcal{C}$  and  $J$ ;

coding an alphabet capital letter "H" by a permutation of code  
values  $P$  and  $I$ ;

coding an alphabet capital letter "I" by a permutation of code  
15 values  $I$  and  $I$ ;

coding an alphabet capital letter "J" by a permutation of code  
values  $J$  and  $J$ ;

coding an alphabet capital letter "K" by a permutation of code  
values  $I$  and  $\mathcal{C}$ ;

20 coding an alphabet capital letter "L" by a permutation of code  
values  $I$  and  $-$ ;

coding an alphabet capital letter "M" by a permutation of code  
values  $N$  and  $\backslash$ ;

coding an alphabet capital letter "N" by a permutation of code  
25 values  $N$  and  $N$ ;

coding an alphabet capital letter "O" by a permutation of code  
values  $O$  and  $O$ ;

coding an alphabet capital letter "P" by a permutation of code values  $P$  and  $P$ ;

coding an alphabet capital letter "Q" by a permutation of code values  $O$  and  $\backslash$ ;

5 coding an alphabet capital letter "R" by a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet capital letter "S" by a permutation of code values  $C$  and  $\supset$ ;

10 coding an alphabet capital letter "T" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet capital letter "U" by a permutation of code values  $O$  and  $I$ ;

coding an alphabet capital letter "V" by a permutation of code values  $\backslash$  and  $Z$ ;

15 coding an alphabet capital letter "W" by a permutation of code values  $\backslash$  and  $N$ ;

coding an alphabet capital letter "X" by a permutation of code values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

20 coding an alphabet capital letter "Y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet capital letter "Z" by a permutation of code values  $Z$  and  $Z$ .

14. (amended) The alphabet input method of claim 10, wherein  
25 the database part stores information:

coding an alphabet small letter "a" by a permutation of code values  $C$  and  $\backslash$ ;

coding an alphabet small letter "b" by a permutation of code values  $I$  and  $\mathcal{D}$ ;

coding an alphabet small letter "c" by a permutation of code values  $C$  and  $C$ ;

5 coding an alphabet small letter "d" by a permutation of code values  $C$  and  $I$ ;

coding an alphabet small letter "e" by a permutation of code values  $-$  and  $C$ ;

10 coding an alphabet small letter "f" by a permutation of code values  $Z$  and  $-$  or a permutation of code values  $J$  and  $-$ ;

coding an alphabet small letter "g" by a permutation of code values  $C$  and  $J$ ;

coding an alphabet small letter "h" by a permutation of code values  $P$  and  $I$ ;

15 coding an alphabet small letter "i" by a permutation of code values  $I$  and  $I$ ;

coding an alphabet small letter "j" by a permutation of code values  $J$  and  $J$ ;

20 coding an alphabet small letter "k" by a permutation of code values  $I$  and  $C$  or a permutation of code values  $P$  and  $\backslash$ ;

coding an alphabet small letter "l" by a permutation of code values  $J$  and  $\backslash$ ;

coding an alphabet small letter "m" by a permutation of code values  $N$  and  $I$  or a permutation of code values  $N$  and  $\backslash$ ;

25 coding an alphabet small letter "n" by a permutation of code values  $N$  and  $N$  or a permutation of code values  $I$  and  $N$ ;

coding an alphabet small letter "o" by a permutation of code

values  $O$  and  $O$ ;

coding an alphabet small letter "p" by a permutation of code values  $P$  and  $P$ ;

5 coding an alphabet small letter "q" by a permutation of code values  $C$  and  $Z$ ;

coding an alphabet small letter "r" by a permutation of code values  $I$  and  $Z$ ;

coding an alphabet small letter "s" by a permutation of code values  $C$  and  $\supset$ ;

10 coding an alphabet small letter "t" by a permutation of code values  $-$  and  $I$ ;

coding an alphabet small letter "u" by a permutation of code values  $O$  and  $I$ ;

15 coding an alphabet small letter "v" by a permutation of code values  $\backslash$  and  $Z$  or a permutation of code values  $O$  and  $-$ ;

coding an alphabet small letter "w" by a permutation of code values  $\backslash$  and  $N$ ;

coding an alphabet small letter "x" by a permutation of code values  $Z$  and  $\backslash$  or a permutation of code values  $\supset$  and  $C$ ;

20 coding an alphabet small letter "y" by a permutation of code values  $\backslash$  and  $J$  or a permutation of code values  $O$  and  $J$ ; and

coding an alphabet small letter "z" by a permutation of code values  $Z$  and  $Z$ .

ART 34 AMDT

PCT/KR03/02283  
RO/KR 13.12.2004

(DELETED)

5

10

15

20

25